



October 4, 2015

(b) (6)

Location Code: GKMPD08

(b) (6), (b) (9)

Durango, CO 81301

Re: Sediment and Groundwater Well Sampling Results

Dear (b) (6):

Thank you for participating in the private well water sampling conducted by the U.S. Environmental Protection Agency (EPA) in coordination with the Colorado Department of Public Health and Environment (CDPHE) and the San Juan Basin Health Department (SJBHD).

This letter provides the results for the water samples collected from your private water well. The water sample(s) were submitted to, and analyzed by, a private certified laboratory for the metals that could have been present in water from the Gold King Mine release.

The test results for your well water were compared to the National Drinking Water Standards, otherwise known as the Maximum Contaminant Levels (MCLs). The results of the analysis are provided in the enclosed table. Though these standards are intended for the evaluation of public water systems and therefore, do not apply to private domestic water wells such as yours, we have included the enclosed table so that you may compare the results with the Drinking Water Standards. **None of these metals were present in the water sample(s) collected from your property, above a level of concern for human health exposure.**

EPA has also established National Secondary Drinking Water Regulations that set non-mandatory water quality standards for 15 contaminants. EPA does not enforce these "secondary maximum contaminant levels". They are established only as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health at the secondary maximum contaminant level. **The following metals were present in your groundwater sample, above the EPA's Secondary Drinking Water MCLs prior to filtration. You may want to consider a water filtration system and follow the manufacturer's recommendations for maintaining your filtration system in order to preserve the safety of your drinking water.**

#### Iron

The concentration of iron in your well water was above the secondary MCL which is 300 µg/L. Iron is an essential element for human nutrition however, high iron can cause constipation and other gastrointestinal effects. In addition, high iron may stain household fixtures and impart a metallic taste and red color to the water.

**Manganese**

The concentration of manganese in your well water was above the secondary MCL of 50 µg/L. High manganese can impart a bitter, unpleasant taste and odor to drinking water and can cause dark staining and mineral deposits on plumbing features.

In addition, the sediment samples from your property were submitted to a private certified laboratory to be analyzed for total metals. The analysis included metals that could potentially be present in sediment deposited as a result of the release from the Gold King Mine incident on August 5, 2015. Sediment concentrations from your property are below recreational screening levels, which are shown as RBC (risk based concentrations) on the enclosed results.

EPA has worked closely with the Colorado Department of Public Health and the Environment to evaluate the conditions in the Animas River following the Gold King Mine incident. Surface water and sediment samples results for the river system as a whole are being maintained at pre-event conditions. It is important to keep in mind that metal concentrations in water and sediment may fluctuate. Fluctuations occur because of weather and other events that change water flow rates or volume. They can also occur if sediments are accumulating at a higher than normal rate at a particular site, before being washed away by the next high water event.

The Colorado Department of Public Health and Environment recommends using the Water Quality Interpretation Tool created by Colorado State University in collaboration with the Colorado Water Institute to get more information regarding the metals examined in your well. The Water Quality Interpretation Tool is available online at <https://erams.com/wqtool/>.

If you have any health related questions regarding these test results, please contact Flannery O'Neil with the San Juan Basin Health Department (SJBHD) at (970) 247-5702. If you would like to discuss your sample results with an EPA representative, please contact Dr. Deborah McKean at (303) 579-4371.

Sincerely,

US Environmental Protection Agency, Region 8

CC:

Colorado Department of Public Health and Environment  
San Juan Basin Health Department  
San Juan County Public Health

# Property ID: GKMPD08



(b) (6), (b) (9)



Analyte	Station ID Sample ID Sample Date Sample time Latitude Longitude				GKMTW286 GKMTW286_082015 8/20/2015 13:25 (b) (6), (b) (9)
			Colorado Water Standard	EPA MCL	Sub Location Basement spigot, pre-tre: Lab Result
Metals, Total	CAS NO	Units			
Aluminum A,B	7429-90-5	ug/L	5000	200	24 U
Antimony	7440-36-0	ug/L	6	6	0.4 U
Arsenic	7440-38-2	ug/L	10	10	5.4
Barium	7440-39-3	ug/L	2000	2000	190
Beryllium	7440-41-7	ug/L	4	4	0.15 U
Cadmium	7440-43-9	ug/L	5	5	0.043 U
Calcium	7440-70-2	ug/L			52000
Chromium	7440-47-3	ug/L	100	100	1 U
Cobalt A	7440-48-4	ug/L	50		0.12 U
Copper A	7440-50-8	ug/L	200	1300	18
Iron A,B	7439-89-6	ug/L	5000	300	1600
Lead A	7439-92-1	ug/L	100	15	0.92
Magnesium	7439-95-4	ug/L			9600
Manganese A,B	7439-96-5	ug/L	200	50	130
Mercury	7439-97-6	ug/L	2	2	0.08 U
Molybdenum	7439-98-7	ug/L			3.7
Nickel A	7440-02-0	ug/L	200		0.4 U
Potassium	7440-09-7	ug/L			1700
Selenium	7782-49-2	ug/L	50	50	2.7 J+
Silver B	7440-22-4	ug/L		100	0.1 U
Sodium	7440-23-5	ug/L			59000
Thallium	7440-28-0	ug/L	2	2	0.1 U
Vanadium A	7440-62-2	ug/L	100		0.48 J
Zinc A,B	7440-66-6	ug/L	2000	5000	13 J

A- CDPHE Agricultural Standards (Jan. 2013)

B- EPA Secondary MCL (May 2009)

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

J- = The result is an estimated quantity, but the result may be biased low.

UJ = The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise

UJB = The analyte was detected in the sample below the reporting limit and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at the RL due to blank contamination. The reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

UB = The analyte was detected in the sample below the Reporting Limit (RL) and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at the RL due to blank contamination.

J+ = The result is an estimated quantity, but the result may be biased high.

R = Reported value is "rejected." The sample results are rejected due to serious deficiencies in meeting QC criteria. The data are unusable. The analyte may or may not be present in the sample.

F1 = MS and/or MSD Recovery is outside acceptance limits.

HF = Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

\* = The result exceeds maximum contaminant level

ug/L - Parts per billion (micrograms per liter)

Highlighted Yellow: indicates result exceeded Screening Value

Analyte	Station ID				GKMSE044
	Sample ID				GKMSE044_091115
	Sample Date				9/11/2015
	Sample time				13:00
	Latitude				(b) (6), (b) (9)
	Longitude				
					Sub Location
					River
Metals, Total	CAS NO	Units		EPA RBC	Lab Result
Aluminum	7429-90-5	mg/kg		3300000	6400
Antimony	7440-36-0	mg/kg		1300	0.27 J-
Arsenic	7440-38-2	mg/kg		4200	19
Barium	7440-39-3	mg/kg		670000	97 J+
Beryllium	7440-41-7	mg/kg		6700	0.53
Cadmium	7440-43-9	mg/kg		1700	2.2
Calcium	7440-70-2	mg/kg			1800
Chromium	7440-47-3	mg/kg		4300000	5.1
Cobalt	7440-48-4	mg/kg		1000	11
Copper	7440-50-8	mg/kg		130000	92
Iron	7439-89-6	mg/kg		2300000	39000
Lead	7439-92-1	mg/kg		20000	420
Magnesium	7439-95-4	mg/kg			2300
Manganese	7439-96-5	mg/kg		160000	2600
Mercury	7439-97-6	mg/kg		1000	0.014 J
Molybdenum	7439-98-7	mg/kg		17000	6 J
Nickel	7440-02-0	mg/kg		67000	7.3
Potassium	7440-09-7	mg/kg			1200
Selenium	7782-49-2	mg/kg		17000	0.66
Silver	7440-22-4	mg/kg		17000	2.4
Sodium	7440-23-5	mg/kg			160 J
Thallium	7440-28-0	mg/kg		33	0.2
Vanadium	7440-62-2	mg/kg		17000	20
Zinc	7440-66-6	mg/kg		1000000	630

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

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UJB = The analyte was detected in the sample below the reporting limit and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at the RL due to blank contamination. The reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

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F1 = MS and/or MSD Recovery is outside acceptance limits.

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mg/kg - Parts per million (milligrams per kilogram). Liquids equivalent = mg/L.

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Analyte	Station ID				GKMSE045
	Sample ID				GKMSE045_091115
	Sample Date				9/11/2015
	Sample time				13:15
	Latitude				(b) (6), (b) (9)
	Longitude				
					Sub Location
					River
Metals, Total	CAS NO	Units		EPA RBC	Lab Result
Aluminum	7429-90-5	mg/kg		3300000	12000
Antimony	7440-36-0	mg/kg		1300	0.26 J-
Arsenic	7440-38-2	mg/kg		4200	56
Barium	7440-39-3	mg/kg		670000	160 J+
Beryllium	7440-41-7	mg/kg		6700	1.5
Cadmium	7440-43-9	mg/kg		1700	3.2
Calcium	7440-70-2	mg/kg			5800
Chromium	7440-47-3	mg/kg		4300000	11
Cobalt	7440-48-4	mg/kg		1000	12
Copper	7440-50-8	mg/kg		130000	280
Iron	7439-89-6	mg/kg		2300000	70000
Lead	7439-92-1	mg/kg		20000	1400
Magnesium	7439-95-4	mg/kg			4300
Manganese	7439-96-5	mg/kg		160000	2800
Mercury	7439-97-6	mg/kg		1000	0.17
Molybdenum	7439-98-7	mg/kg		17000	16 J
Nickel	7440-02-0	mg/kg		67000	9.1
Potassium	7440-09-7	mg/kg			2400
Selenium	7782-49-2	mg/kg		17000	2.3
Silver	7440-22-4	mg/kg		17000	8.5
Sodium	7440-23-5	mg/kg			230 J
Thallium	7440-28-0	mg/kg		33	0.5
Vanadium	7440-62-2	mg/kg		17000	44
Zinc	7440-66-6	mg/kg		1000000	1100

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Analyte	Station ID				GKMSE046
	Sample ID				GKMSE046_091115
	Sample Date				9/11/2015
	Sample time				13:30
	Latitude				(b) (6), (b) (9)
	Longitude				
					Sub Location
					River
Metals, Total	CAS NO	Units		EPA RBC	Lab Result
Aluminum	7429-90-5	mg/kg		3300000	12000
Antimony	7440-36-0	mg/kg		1300	0.46 J-
Arsenic	7440-38-2	mg/kg		4200	46
Barium	7440-39-3	mg/kg		670000	150 J+
Beryllium	7440-41-7	mg/kg		6700	1.5
Cadmium	7440-43-9	mg/kg		1700	2.9
Calcium	7440-70-2	mg/kg			4200
Chromium	7440-47-3	mg/kg		4300000	9.8
Cobalt	7440-48-4	mg/kg		1000	10
Copper	7440-50-8	mg/kg		130000	250
Iron	7439-89-6	mg/kg		2300000	69000
Lead	7439-92-1	mg/kg		20000	960
Magnesium	7439-95-4	mg/kg			3300
Manganese	7439-96-5	mg/kg		160000	1700
Mercury	7439-97-6	mg/kg		1000	0.12
Molybdenum	7439-98-7	mg/kg		17000	12 J
Nickel	7440-02-0	mg/kg		67000	8.8
Potassium	7440-09-7	mg/kg			1900
Selenium	7782-49-2	mg/kg		17000	1.8
Silver	7440-22-4	mg/kg		17000	7
Sodium	7440-23-5	mg/kg			220 J
Thallium	7440-28-0	mg/kg		33	0.45
Vanadium	7440-62-2	mg/kg		17000	39
Zinc	7440-66-6	mg/kg		1000000	950

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\* = The result exceeds maximum contaminant level

mg/kg - Parts per million (milligrams per kilogram). Liquids equivalent = mg/L.

Highlighted Yellow: indicates result exceeded Screening Value



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8  
1595 WYNKOOP - MC 8RC  
DENVER, CO 80202-1129  
Phone 800-227-8917

## HOW TO FILE A CLAIM

*EPA is committed to taking responsibility for the impacts to communities affected by the Gold King Mine Release.*

To file a claim for monetary compensation, please visit the Region 8 Gold Mine Release Incident website:

<http://www2.epa.gov/goldkingmine>

Complete the fillable PDF version of the Standard Form 95:

[http://www2.epa.gov/sites/production/files/2015-08/documents/standardform95\\_4.pdf](http://www2.epa.gov/sites/production/files/2015-08/documents/standardform95_4.pdf)

Email the signed Standard Form 95 to:

[R8\\_GKM\\_Claims@epa.gov](mailto:R8_GKM_Claims@epa.gov)

Or mail the Standard Form 95 to the following contacts:

Richard Feldman  
Claims Officer  
U.S. EPA Office of General Counsel  
1200 Pennsylvania Avenue, NW (MC 2399A)  
Washington, D.C. 20460

Michael Nelson  
U.S. EPA Region 8 Office of Regional Counsel  
1595 Wynkoop Street (MC 8RC)  
Denver, CO 80202